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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,327	02/17/2004	Yan Wang	944-003.103-2	9418

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EXAMINER
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CHO, HONG SOL

ART UNIT	PAPER NUMBER
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2619

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11/01/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/781,327

Applicant(s)

WANG ET AL.

Examiner

Hong Cho

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4,10,11,29,32,38,39 and 57-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,10,11,29,32,38,39 and 57-62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This office action is in response to the amendment filed on 9/10/2007. Claims 1, 4, 10, 11, 29, 32, 38, 39 and 57-62 are pending in the instant application.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Re claims 1 and 29, the specification fails to provide proper antecedent basis for predetermined range defined by a low and a high value.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1, 10, 29, 38, 58, and 61 are rejected under 35 U.S.C. 102(e) as being anticipated by Fiorini et al (US 6760596), hereinafter referred to as Fiorini.

Re claims 1, 10, 29, 38, 58 and 61, Fiorini discloses measuring a carrier-signal-to-interference-signal level (C/I) (*predetermined parameter, signal-to-interference ratio* as in claims 58 and 61) of an uplink as a function of time (*determining that a fluctuation of a predetermined parameter related to a radio link channel transmission exists*, figure2; column 5, lines 45-49). Fiorini discloses comparing a transmit power to two different thresholds (column 5, lines 62-65) and changing uplink-transmit bit rate by changing a spreading factor (column 2, lines 21-23) to keep the transmit power between two thresholds (column 5, line 66 to column 6, line 5) (*changing a spreading factor used for uplink channel spreading to counteract said fluctuation in order to keep a predetermined parameter related to said fluctuation in a predetermined range, defined by a low value and a high value, by increasing or decreasing said spreading factor*). Fiorini discloses adjusting C/I by adjusting a spreading factor to ensure a desired frame or block error rate to maintain acceptable link quality (*changing the spreading factor if frame or block error rate meets a selected criterion*, (column 1, lines 43-52; column 2, lines 21-25).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

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to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, 11, 32, 39, 57, 59, 60 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiorini in view of Andersson et al (US 6334047), hereinafter referred to as Andersson.

Re claims 4, 11, 32 and 39, Fiorini discloses changing a spreading factor (column 2, lines 21-23) to keep the transmit power between two thresholds (column 5, line 66 to column 6, line 5), but fails to teach receiving a spreading factor control signal (power control signal in claims 11 and 39) from the network followed by the mobile station changing the spread factor. Andersson discloses sending a traffic power control command to a mobile station for power control adjustment (column 9, lines 18-24). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Fiorini to implement the feature of transmitting a transmit power control command as suggested by Andersson so that a transmit power would be adjusted according to a power control adjustment type without significantly adding to the signaling overhead.

Re claims 57, 59, 60 and 62, Fiorini discloses comparing a transmit power to two different thresholds (column 5, lines 62-65), but fails to teach using one reference SNR value (the low value of the SIR being equal to the high value of the SIR). Andersson discloses comparing a signal quality of the received signal to target or reference CIR/SIR value (column 12, lines 29-35). It would have been obvious to one having ordinary skill

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in the art at the time the invention was made to modify the system of Fiorini to implement the feature of setting one reference SNR threshold value instead two threshold values so that a transmit power would be adjusted to an optimal level close to the reference SNR value for the benefit of reaching efficient performance without wasting battery power.

***Response to Arguments***

6. Applicant's arguments filed on 9/10/2007 have been fully considered but they are not persuasive.

**Regarding objection to the specification,**

The specification was objected to since the specification fails to provide proper antecedent basis for predetermined range defined by a low and a high value as cited in claims 1 and 29.

**Regarding 102 rejection on claims 10 and 38**

On page 9 of the Remarks the Applicant argues that Fiorini does not disclose changing the spreading factor if frame or block error rate meets a selected criterion. The Examiner respectfully disagrees. Fiorini discloses changing a spreading factor based on measured C/I ratio to ensure a desired frame or block error rate to maintain acceptable link quality (column 1, lines 43-52). It is clear that a spreading factor is changed if measured frame or block error rate is not close enough to the desired frame or block error rate.

**Regarding 103 rejection on claims 4, 11, 32 and 39**

On page 10 of the Remarks the Applicant argues that the combination of Fiorini and Andersson teaches away from the teaching of Fiorini and the present invention. The Examiner respectfully disagrees. It is not precisely argued how the combination of Fiorini and Andersson teaches away from the teaching of Fiorini and the present invention. Andersson cures the deficiency of Fiorini in light of sending information to a mobile station for power control adjustment.

**Regarding 103 rejection on claims 4, 11, 32, 39, 57, 59, 60 and 62**

On pages 11-12 of the Remarks the Applicant argues that there is no suggested motivation for the combination of Fiorini and Andersson by stating that reason for incorporating Andersson into Fiorini is similar to shared advantage for achieving competitive or economical advantage irrelevant to the problem to be solved by the present invention. In reply, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the combined teaching of two references solve changing spreading factor of Fiorini by receiving power control command as suggested by Andersson where signaling overhead

and bandwidth consumption related to frequently sent power control commands are kept to a minimum.

Therefore, the Examiner concludes that the rejection of claims stands.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087.

The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hc  
Hong Cho  
Patent Examiner  
10/25/07

  
10/29/07  
WING CHAN  
SUPERVISORY PATENT EXAMINER